## MADROÑO

- November 14, 1914.—Regular meeting. Lecture by Dr. P. B. Kennedy on "Observations on Certain of the Native Clovers." Illustrated by herbarium specimens and drawings.
- December 12, 1914.—Annual dinner at Hotel Carlton, Berkeley. Talk by Mr. S. B. Parish of San Bernardino, on "Reminiscences of Early Days and Early Botanists of California."
- January 16, 1915.—Regular meeting. Lecture by Miss A. M. Lute, Seed Expert of the United States Department of Agriculture, on "Taxonomic Values in Seeds." Illustrated by stereopticon views.

## REPORT OF FIELD TRIPS.

May 10, 1913.—Leader, Mr. Guy Smith. Locality, San Leandro Hills and the Lake Chabot district. The trip was meant as one of general observation.

Brodiaea congesta (Ookow) was found in abundance in full flower in a field of half-grown grain. The bulbs are too deepseated to be disturbed by the plow, and, their season of growth coming after the seeding of the grain, they are benefited rather than injured by cultivation.

Papaver heterophyllum (Wind Poppy) and Calochortus albus (White Globe-Tulip) were found on a rocky hillside. In one canyon Mimulus langsdorffii, var. grandis (Monkey-flower), grew in profusion.

May 31, 1913.—Leader, Dr. W. L. Jepson. Locality, Leona Heights, Oakland. Especial attention was paid to the condition of plants under extreme drought, which was then in its third season, causing summer flowers to exhibit all evidences of hardship in prolonging their existence.

Adenostoma fasciculatum (Chamisal) served as a text for a discussion of habits of the shrubs which inhabit dry hillsides.

- January 10, 1914.—Leader, Dr. W. L. Jepson. Locality, Telegraph Canyon, Berkeley. The object of the trip was the study of seedlings. The characteristic growth of several species was observed. Lupinus densiftorus (White or yellow Lupine) proved the most interesting in its habit of protecting the young plumule inside the swollen upper stem until sufficient development is made to withstand the frosts that threaten in December and early in January, when the plants are beginning to grow.,
- February 14, 1914.—Leader, Mr. Frank B. Kellogg. Locality, the sand-dunes south of the Cliff House in San Francisco. Mr. Kellogg explained the special characteristics of dune-binding plants, their extremely well-developed underground parts, both roots and subterranean stems, and their habitual low and

tufted or spreading growth. It was demonstrated how terminal growth is prevented on shrubs and trees exposed to much wind, while lateral twigs develop more fully, producing the one-sided effect seen in the woody plants on coasts or hills facing the sea.

The species observed most closely were Ammophila arenaria (Beach Grass or Arram Grass), Elymus arenarius (Sea Lyme Grass), Lupinus arboreus (Tree Lupine), Abronia latifolia (Yellow Sand Verbena), and Cupressus macrocarpus (Monterey cypress).

- February 28, 1914.—Leader, Miss Harriet Walker. Locality, Land's End, San Francisco. An observation of the permanent growth that can be found on the seaward cliffs was made. The grasses Ammophila (Beach-Grass) and Elymus (Wild Rye) and a sturdy Equisetum (Horsetail Rush) bind the shifting sand, and Salix lasiolepis (Arroyo Willow) is fixed on the banks. At this date Fragaria chilensis (Sand Strawberry), Sanicula arctopoides (Snake Root) and Dentaria integrifolia (Milkmaids) were in full bloom; while belated blossoms of last year's Grindelia (Gum Plant) and Eriophyllum staechadifolium (Lizard Tail) were to be seen.
- March 14, 1914.—Leader, Mrs. Guy Smith. San Bruno Hills were visited for the study of *Iris longipetala*. Hundreds of acres are covered with this species.
- March 28, 1914.—Leader, Mr. L. S. Smith. Locality, Mt. Tamalpais. Two characteristic associations were observed, the chaparral and the redwood floor. In the former two or three species of *Ceanothus* (Mountain Lilac) and *Arctostaphylos* were found in blossom; while along the trails and open spots many liliaceous plants and annuals were in flower. On the redwood slopes *Vancouveria* and *Oxalis oregona* were found.

## EXHIBITS.

## AUTUMN EXHIBIT OF NATIVE FLOWERING PLANTS.

From October 13 to 17, 1913, the Society held an exhibit of flowering plants at the Oakland Public Museum. A committee, of which Mr. Guy Smith of San Leandro acted as chairman, made a collection of about 300 species—219 in flower, and others in fruit. Most of them were taken from the Bay region, but some were sent from Plumas, El Dorado and Amador counties, the Yosemite, and the desert of San Bernardino County.

(Calendar of meetings, field trips and exhibits to be continued.)